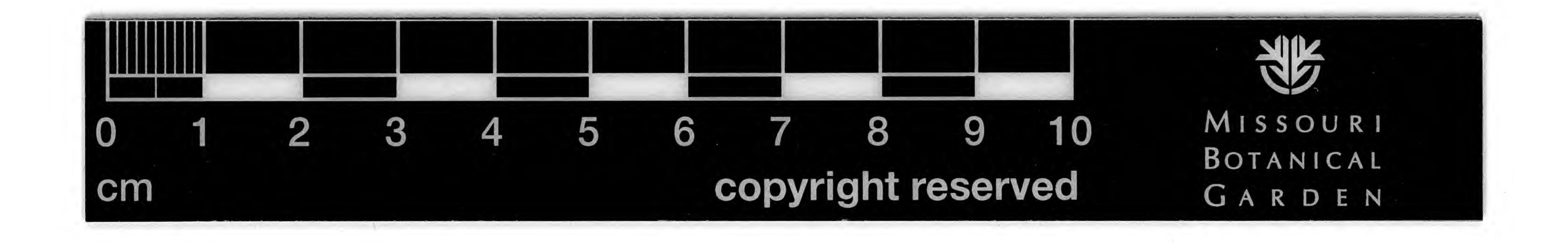


Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Common of 39 7883 Jacks Bottomy Colorium Oxalate is common in the Gridering of Jymnosper, ( nove in agio sperms) within the rell wells, consisting of numerous ornall granules / xix Solver (subach) - also in the cell wells of the part, in many spering ( bast primary costine pavenchyan. The thick walled, of branched, fibrevelly about the scattered Through the parendy un of gymespers, so rolled spiralen cells " ff-cate ofthe it They one with the cells exalite with 6 equitalents of water crystelliges itt quadratic ryste (rephily) Odri , oxalate with 6 agritalents of water Me Keb is salition: 3 grains of Blass Chlosate in 2 draws of killer word of 4.10 sp. gons. Scholy; solution: Jine in hydrorllow and disolved solution with excess of Jour composition to improve interest potential with potential of tolak & in San adred ( 1 grains Ladrien, 3 gr. potessin rodt, 1 ourse of wales.





De Bay Gergl. Andonie

Combridge Och 10 1883

p. 524 In the head wood the rolls under the suisnosop show no change but the succession separate from separate cours its energy in the inflictation of the mendances with pringer organis bodies ( classic, vesin its on in the filling up of their interior with such

1-25 Wasts white contains resin, this way arrandale in old wood to such an extent, that the original call live is complete abolished (verdiningt)

Lefthetic of wood with Silvinia and in Chrypobelem, that wond

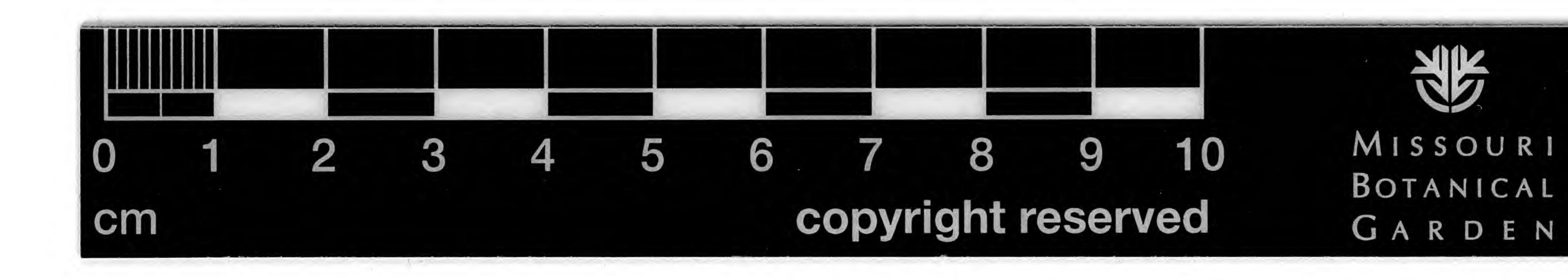
( Fectioning granding) to, only in heart wood, not in the sap.

Chrypobele disappears in the heart wood.

vord i lbong near would [ also dispyros!]

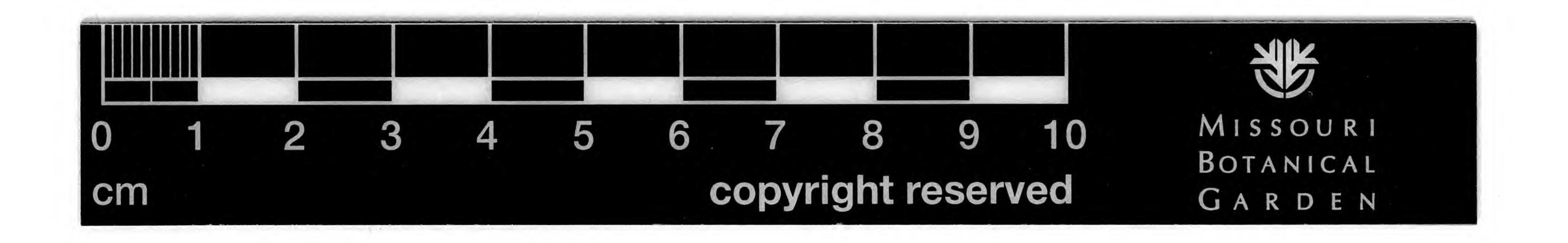
127 The Conferons woods are strongest a bed, where the annual riags are narrow; the devidewers (or diobyledons nothe) trushave the best wood, when the rings are widest.

The lower park of the trush has usually the best wood i both classes of trees - the higher parts are los valuable.



MISSOURI BOTANICAL GARDEN

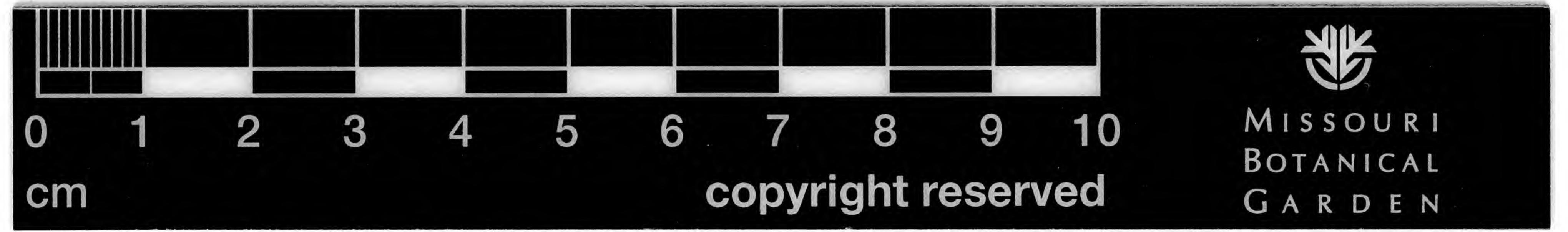
GEORGE ENGELMANN PAPERS



De Bary Vergl. Ant. (Com. Gr. S. Och 10 1883) p. 133 Soler enchym, term inhorized by Meterius, are strugthenry apparatus essentially mechanical, have no absinilation functions. the same in the pears, but short: dong in many distifledors, also called bash fibres - libriform fibres. also i Pelms ett, Askepies, Constants (Jute) p. 456 Confers (except dager) have all resindants, external or internal. p. 493 The servending wood (allowed made after the first year) consists of cells,
trachere, and delerenchyme, but most elements live apt to berown
thick walted and solventie. The trackers are found in the form of versely and as trackerder 1. 162. Thy are tradent with fibre like Thekenings (spiral-ring - ned-trackere)

2 detted or) pitted trackere 3) traberalete trackere

mill of the trackere Cut Gerens adjustin have netted versely , of vornel & autum nel cood 515. Change of the fissur forms in the assemble riags, and word has compressed rells, and offen Thirteen wells of cells ( and always) Change from vernal to autien al wood judden or gradual used comprimes i Comform the wood of which consists only of Ancheity and medallary mys. I fining Vermil Frakcids are wider, usually 4 augles (also 5th 6 - angles) it transverse section, destruct vood has compresed truckings is ferred regions of the annual rings groups of very thick walled over



brownsh ) ring segments junion to the automand wood. Such are
found i Pleas sylvesting in the innorment of the also off in the outer assured
rings [ Rosida Ellistic ? ]

Le woods in such the automal booder is compared entirely or principally
of Percendyma ( Money, Robinia, Amergha, gladsochii, trapiness Catalian Menters)

The sells of the automand wood hower theme would the the in the oney

In general, Cutaness, proximes the vessels are with in travel wood, form

2 sometime in the other condi
" Operation ( another in second to lack the application of seminary)

Times

sty general successful trues have south a semestral or seminary

rings? Assessmin digitate is laid to show this. Prives, Casanorice have

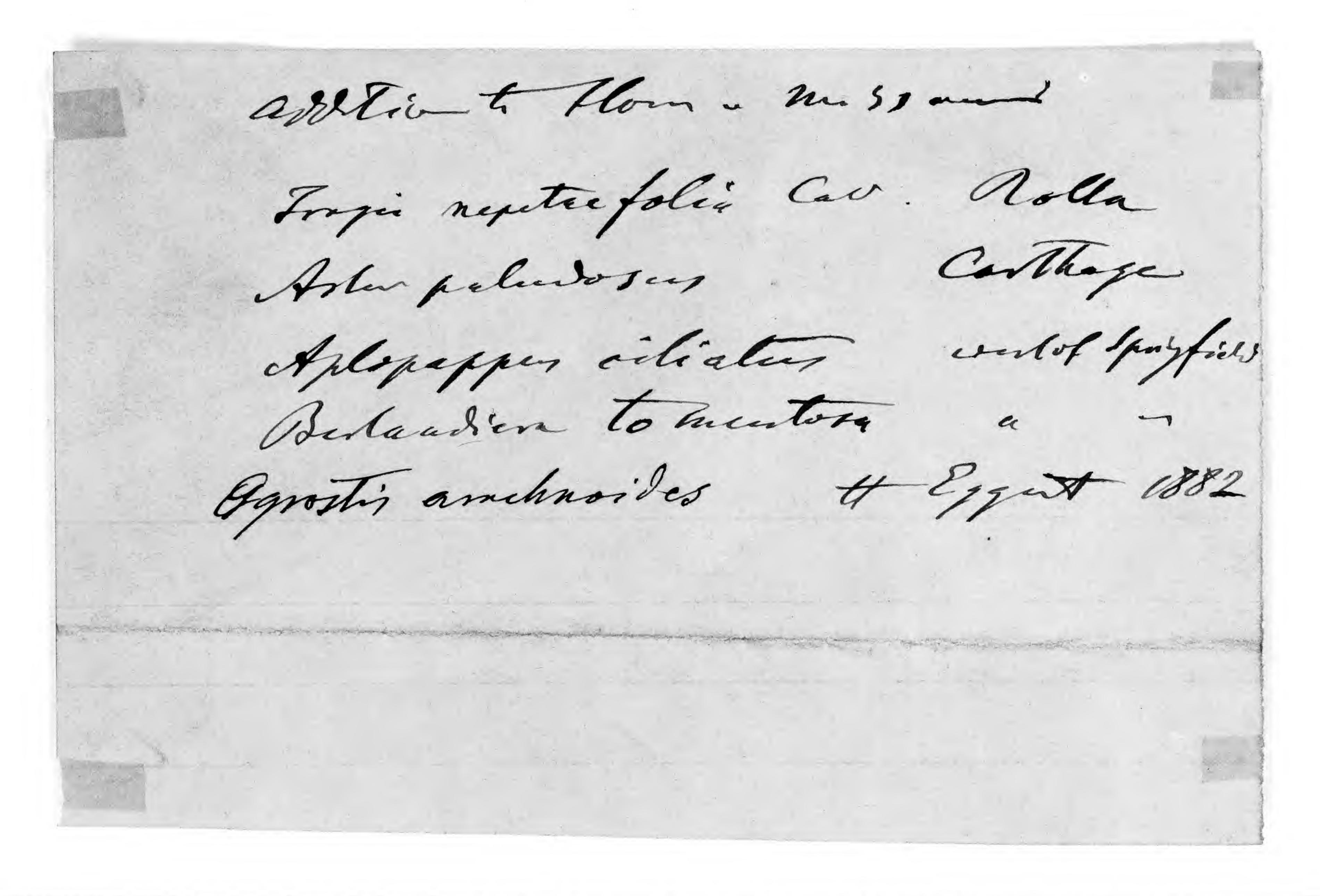
off convention lines or the successful trues have around rings - but are existly

resignized as wanting the automate wood as its characteristic structure

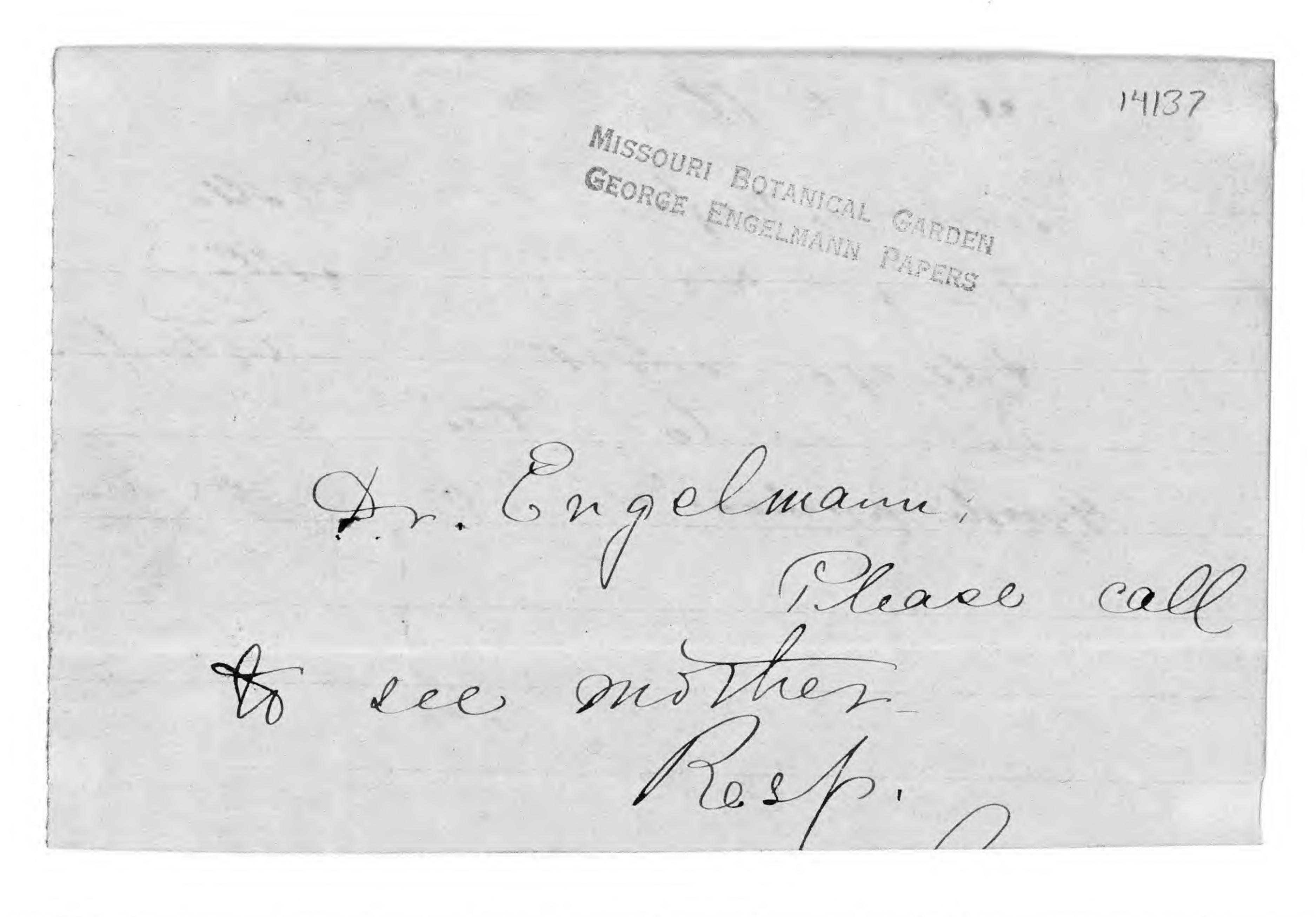
491 In most deridens tress the upper side of latent [ horizontel? ] branches is
the thicker one, in Carifers (also in Cartana, nowling) the lower side is the
thicker of prevalent (geforderta) side.

MISSOURI BOTANICAL GARDEN GEORGE ENGELMANN FARERS





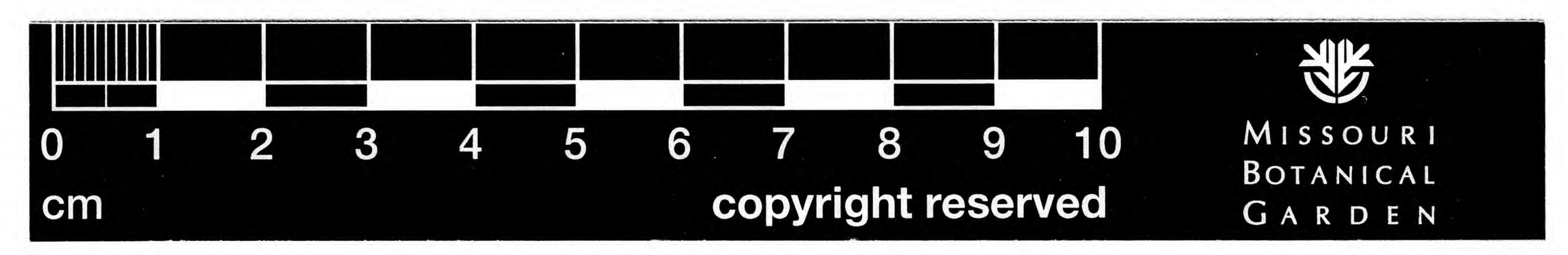






No of the Herbanium / of the W. A.N.S. Notes and Observations made in comparing Torrey & Herbarium in Now forth

March 1840. Baptisia sphaerocarpa Nutt. very different from the eastern B. tinetorie under which name I have had it. Baptisia leurantha TAG. over western B. alla. The true alba grows southeast and is a very slender plant. Malva Tapaver Cav. is my hispida, acrosding to Torrey! opinion, our north american plant is certainly zynonymous with Nattalle Nuttalle vordifolia, and Loaven worths Malva Triangulata, which last one is very different from Malway Houghtoniana. This M. Houghtonien Is synonye with my Les cecer i Visa Ornum: he says, it is a Sphaenockee D'aptisia mega carpa chapa. appears to be my les coerulea for near doit gibson. Examine further! Acacia hirta Nutt is my Acaria from the Ozark mountains near Lot gibson, certainly no Sarlingtonia. Dalea lanata Spreng is undoubtedly the same as Nuttall, D. langinosa. Me first name being older muest be preserved. Leaven worthea Michauxii Son is my Platysper mun, which is very different from the true Matyspermen (Howken Amorpha leverigata Nuttall is undoubtedly my broad leaved variety of A. futirosa from the Mannelle Akansus Sephrosia holosericea Nutt is our Missouri plant but restainly but a variety of the more glabrous eastern J. virginica Tephrosia onobyrhoides Nitt is my Av kansas plant, which I had rons idered to be pauxifolia Nutt. Selleville shirt I had thought to be a sterridium ramos issienum. Has any attention been paid to the sterile dis-Mowers Discopleura Neuttalla der (or puhaps D. capillarea Da ?) is the Umbelliferous plant skiet I found in such lærge gæantities



near dott gibson but never in seed. I am not quite certain Though. My plant rather resembles our specimen Alerted by Delchen which I find named Lestoraulis \_\_\_ The Genes Leptorqueles is in great disorder, and I can glean no information from what I find here. Engium aquationem Mx The common plant, in very Different forms and varieties. Engium prostratum Nutt from Arhansas, resembles somewhat my specimens from there, though I am not prepared to say that they are the same. Enjagin gravile Bald. is vertainly an other one, as well as E. ovali folium Le Conte, which is much layer, Rydwordy le aminicana may be Lindheimers Mant MISSOURI PATANICAL GAI from New Orleans. GEORGE ENGLLMANN PAI Imprision also purpureum very similar to some gellow. flowerd sperime, i my herbania, but purple, Imgenium barbinode is in Torrey's Herbanium from South Carolina & Kentucky, fruit much alated Whether if is really Im. burbinde appears to be doubted The umbellifenous plants are in great kisorden Tanax trifoliatour ! is not in Millouni. All our plants are l'quirquefolis, and l'trifolis is a very distinct plant, and much smaller with a round freq My Mubelliferous plant from Alkansas, burren branch of Illinois n'ver ( with Cartus, Infolium, Mudberthia et) is here from Augusta, Georgie, without Maine. \_ hond it be nothing but my Cherophylleun crection ? - Chaerophyllum erectum mini is certainly agood species, seeing are in Torrey's Herbanium from New Veans, and a sperme with hairy, or slighty pulses cent fruit, without locality Chaëro phyllum procumbens, las vargum is here from Missiriffi \_ both species appear to vary with smooth havy and very pubescent fruit.

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Seucedamin from western Missouri I do not find in this Kerbanium, Though a great many officeries of Venredamum from California and Fregan are here. Arrhemora nigide Der is night. Polytaenia Nuttalli Dec is the Hours plant that supposed an Angelica. Trepocarpus Athura Fac is undoubtedly men Akansas plant with the odour of Dancous. Nemophila pharelioides Nisnight Ellisia microcalyx Nutt is undoubtedly my Claut from the Arkansas bottom, mistaken by me for E. nystelea Lateral segments of leaves toother on the upper side. Ellisie ranuncalarea appears to be similar but the segments of leaves are too the on the lower side LMANN PAPERS Ellisia Nyctelea L'is our Statouis plant, though it spreas to be unknown, that all the larger specimens have flowers in racemes, this circumstance mirled me. The never fand Nattalls E. ambigua which has some similarity with ? microcalyx, but has recember flowers and a carrest of at least double size. Thavelia from Ahausas Town not well make out. It is not the Chardia hirsuta hutt, which I have from Jexas Hydrophyllum marrophyllum Nest is my small merian from the Taline, Allansus, Onosmodium molle from Florida appears to de someshut different from our Stant, but the I hispidem My which is here from Naw Gersey is certainly quit an other thing. It appears to me not improbable that our Rant may be Kunth's O. strigosum. The mame is a great deal more appropriate than O. molle! Lithospermum lineanispolium Goldie is my apalum. Lapulum is quite another plant. My plant is in Torrey!



Ceanothus americana var Petcheri from Missouri & Ahr is the pubescent variety of the common plant. C. ovalis Bigles. smooth and pubercent, from Akausas is undoubledly synonymous with my lancedatus, and the same as the small specimens from near dittle Rock is my Ahhansas Claut Monnins carolinianus is The Adocus plant Chamins laureo latus which I had named Ah. frangulorides. Hantago gnaphaloides Nulls is my curta Shich is probably only a variety of Plantage anistata Mx No Soult can now exist of the identity of their plant and of its entire Différence from IE. pusible. Sabbatea campestris Mutt is my Arkansas plant Bockmeria cylindrica is undoubtedly all what I have the lateriflom I cannot find in this Herbarium It is probably the same thing Utica purpurascens Nett is the small plant from Arkansas Cottom i April. Urtica gracilis Olas. ( here from Kentucky & Whang) is my piluliperous mettle from Fortlibson. Ullisa chamaedy sires is another plant. Hedyotis glomerata appears to be somewhat similar to the plant I valled A. ovala . Whether the same or not I oan at present not derde. Houstonia purpuru à is my latifolie from Westen Al Houstonie overulen very probably my caespitoze plant from Little Nork my supplifolia Nº 437. Houstonia ciliolata Tom is perhaps the common missoniplant, though I am now inclined to consider it as Houstonia Congrisolia Mx Houstonia gravilis Mutt is very propably mine from Fort Smith though it may perhaps be A. Fence police Me

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
Notes from Torrey's Herbanium. 2. Houstonia rupestris Aat my longifolia from Alten? Diodia virginia is correct. galium tinitorium, with four ovate or narrow lancely leaves Doubtfull, wether I have it. Galium bruet eosum n.M. is here without a name from Red niver and dexas. Corgdalis orgstallina n. sp. is undoubtedly a species different from aurea : capsule ovate terete (not Torulose, clongated) covered with pelleurid glands. It gis here as a variety of aurea for Alaurus Corydalis aurea all my specimens from Mh Their and Missippi, flowers lange ar small braits very varying Consdilis glacera has reddish flowers, with slight yellowish Tinge, very long [ 1-1/2 ) not very tomelose fruit, a extremely small tracts. The Caurea may be divided in two varieties ! small flower, and long peduneale of the fruit 2. large flower a smoller pedruarel. the prist. is my Stdowis plant Clematis Borna Clematis Pitcheni very probably the Akaujas plant - Cl. veticulatu from Denide appears different Insmale carpus paradoxus litt is my Campanul Cistarina Insmato carpus ludoviciamas hutt is my mediana Lobelia Costashya Dec is rominon round statuis on the barrens, and always later than the True of Clay tomiana with which I had it confounded, it is characterized by the Segments of the calyx being sagittate Denothera speriosa Nutt is our western plant, with reddish white flowers, from western Missouri & Avkanse, Mora camadensis is the slant of our lakes Shick I won'thout further examination had put down as Potamogeton densus. species not named is Lindheimen's Plut form Texas, shick resemble Crocus. It is here also for Texas

Alisma vostratum Nutt synonymus villi Sagittania alismoides is our Hant from the latter of the american Botton, intermidiate between Alixana and Lag. Hava is undon btedly the I want where Sagillani natans I solletted without flower in small streams north of Little Rock, Arkansas. Sagittavia the large procumbent or rathe radicant plant, with lange, obtuse, nerved teaves and reticulated leaves, is here from Nattall without locality and name. We have it from the American Cotton Lepidium suderale I said to grow near It Louis, to gether with virginianum, very easily Vistinguished by the seed Cardamine ludoviciana Natt is our common plant the carloest oneriferous plant in Minky. Cardamine virginiana is the Mant from Huchenthal Grande which Torrey considers as only a variety of Chirsuita, Avabis dentata Torry & Gray is my plent from the Missinippi bottom, Shith I got from De Frank by the lane of St. petracea. Arabis hissula - Turntis himsula is here for cast as west, histate and nearly smooth, histate glabata, ovata a sother varieties, undoubted Grace of my plants belong to this species. Frankitis brushy carpa – may be my Ambio from Lot glason; or is it rather Turnitis glason? Vesicaria angustifolia North is my Plant for the Merok ees Streptanthus obtusifolices, Hook collected wear the hot Springs, is my plant from near the same Lorality which I had confounded with Ar. sharulatus Mut. Draba eunei folia Mott, is Linkeinen Frak from Texa, Or is it withen the Drake similar to carolinana. MISSOURI

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Draba brochyraspa IXG. is my invana for It Louis and Traba Wicrantha Mutt is in my opinion only a variety of D' caroliniana vitt hispid lilites. Silicles of Draba platgrappa no runeifolia are ofequal breadth, but the latter are twice as long. Inbu caroling has fruits longer and narrower than both. Stock pl. cun carol From Nuttalls Notes to the Hern of Arkansas Poa interrupta Natt. appears to be my plant from Noundorffo Form, on the Jand of the Arkansas Cottom. Engonium Longiplium, Neitt prabably the same plant as mine of the same name. Gerardia heterophylla Mutt \_ my. G. prinnationa? Salvia longifolia Mutt is probably my azurea from Ahansas; but is handly different from the true d'ajurea Redeoma arkansana Nitt probably my glabtu, or part of it. I think I have both, the true glabon and this Arkansana. Dracorephalon intermedium Natt is my plant from Fort Smith without doubt. Hydrolea ovala Must pubercent, sprinose, the only one which Nuttall mentions in Arkansas, probably the some as my spinova. But d'also forces the quadrivalvis, or a Timilar one - Arkann They much suring pargeledes in North

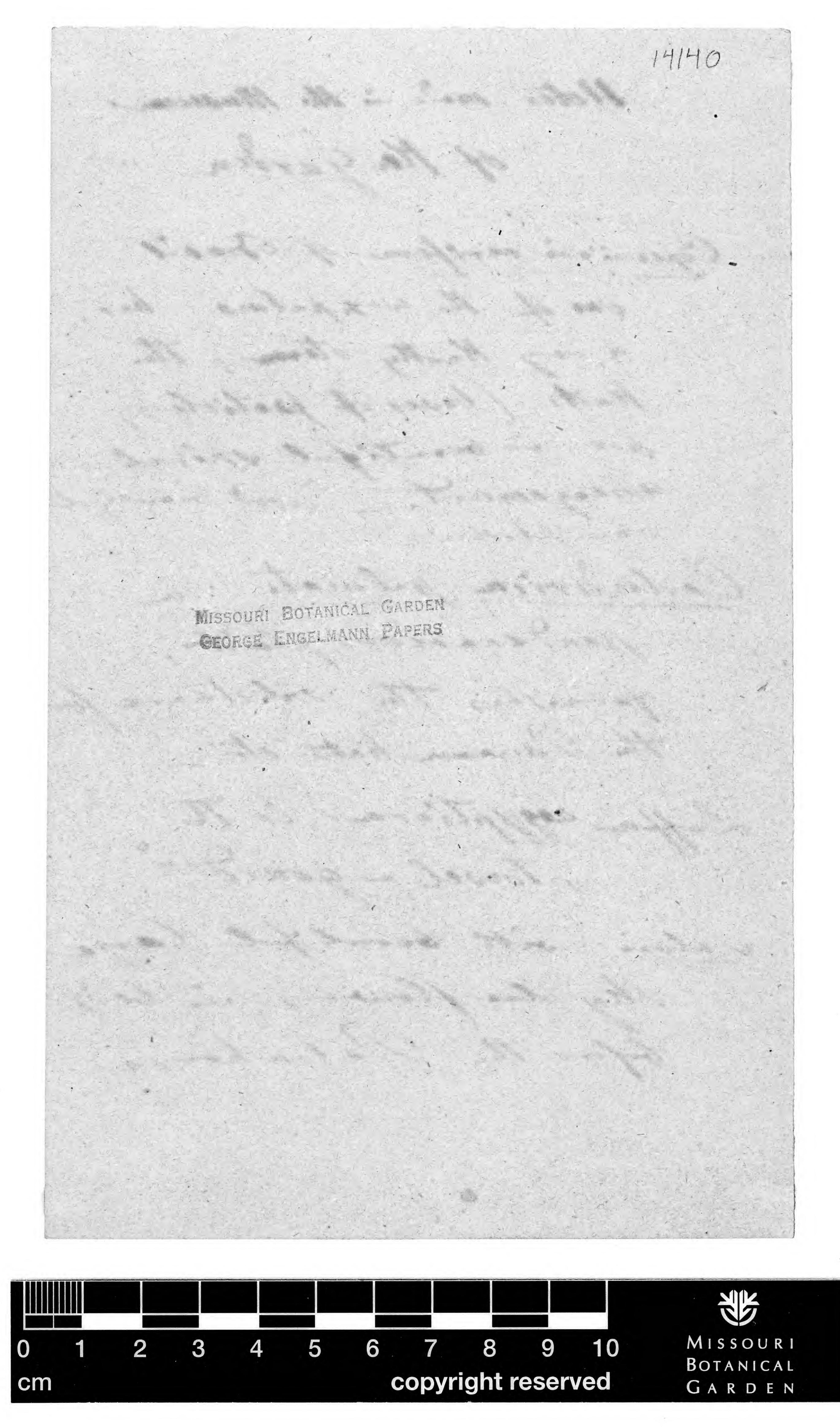




Moter made in the Museum A Kengarden 1857. Copernion verifern of Brazil one of the wax palms has a very Knotty steware; The Ands (bases of pactibles) are in beautiful spiral umagement. Tobor butifl when pelisher Carludovica pelmati, a pand inarcon plant, funishes the substance for The Vanamahat et. Luffa ægyptiarn is The "Towel gourd" Delvin with benefit lange Sky blue flowers in beds before the Calmhouse

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Thous soften hardy for the Henes Thousand Harmen , trysles yet brown Museolan Hernandezii, Frijolen, Yetl, Bown bean, rommonly rullwated in Mexico a møgile Selicion Olinus sembroides Just. from Mother Mexita bear elible ficil, which in Durings is bought inte leaster. Cheveria Scheerie Lind . bot. 29. XVIII. tot 27 Whep. Rep. V. 794. \_ Ohihunhun, Potts, any be the stand of some Lyngiam Convantesi Beechgaven pertinature & Wyhler were for but all faith south the my writing of except P. pertitates Auch is for the Fierra Madre. Parta modest Holi humben foelite 406 region Box: flow Buth. Bot Selph. Ampulson globalos ~ 11 congette " Loeselia vorriren 9. In i Dr Ad Ingg 1260 Poulstemon imberbio Mend. & C. Con. O. minialion Lind., Obitant, ofthe puling, var. of. Car. Cheloper; Chearing grugg 20 Overrentis alata HOS H. Grag. 944 MISSOURI

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Vinn religiosa - O. hirlella 1884. P. oocarpa Schied - Endt. Synops. = 1. radiata Hoof 977. 628. a L. Am. Bot Beech. won Son o Och hunden Bott. P. lersphylla Scheid v Dey. a. L. 1. patiets lad D. rembroster June. Gregg 52 Lud. mongr. p.182 P. Teorote Chan & Sell. Sazittaria Geriganensis HARA III. 161 Lamps new Canama MISSOURI BOTANICAL GARDEN GEORGE ENGELMANN PAPERS 

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